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10/777,366

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EXAMINER

KNABLE, GEOFFREY L

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JEAN-CLAUDE GIRARD, JAMES MICHAEL HART,  
and WILLIAM ALLEN REX

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Appeal 2008-4304  
Application 10/777,366  
Technology Center 1700

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Decided: September 16, 2008

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Before ADRIENE LEPIANE HANLON, CATHERINE Q. TIMM, and  
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134 from an Examiner's final rejection of claims 9-13. Claims 1-8 are also pending in the application but have been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

The Examiner finally rejected claims 9-13 under 35 U.S.C. § 102(b) as anticipated by Fritze.<sup>1</sup> Final 3.<sup>2</sup>

The Examiner also finally rejected claims 9-13 under 35 U.S.C. § 112, first paragraph, based on the written description requirement. Final 2. The Examiner, however, withdrew the rejection in the Answer. Ans. 3.<sup>3</sup>

B. ISSUE

Whether the Appellants have shown that the Examiner reversibly erred in rejecting claims 9-13 under 35 U.S.C. § 102(b) as anticipated by Fritze.

C. FINDINGS OF FACT

The following findings of fact are believed to be supported by a preponderance of the evidence. Additional findings of fact as necessary appear in the Analysis portion of the opinion.

1. Appellants' Specification

The Appellants disclose a tire build apparatus and method for incorporating an annular antenna and associated electronics into a tire. Spec., para. [001].

Figure 1 illustrates a tire having an annular antenna assembly incorporated therein. Spec., para. [008]. Appellants' Figure 1 is reproduced below:

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<sup>1</sup> US 3,662,335 issued to Fritze on May 9, 1972 ("Fritze").

<sup>2</sup> Final Office Action mailed February 9, 2007.

<sup>3</sup> Examiner's Answer mailed December 12, 2007.

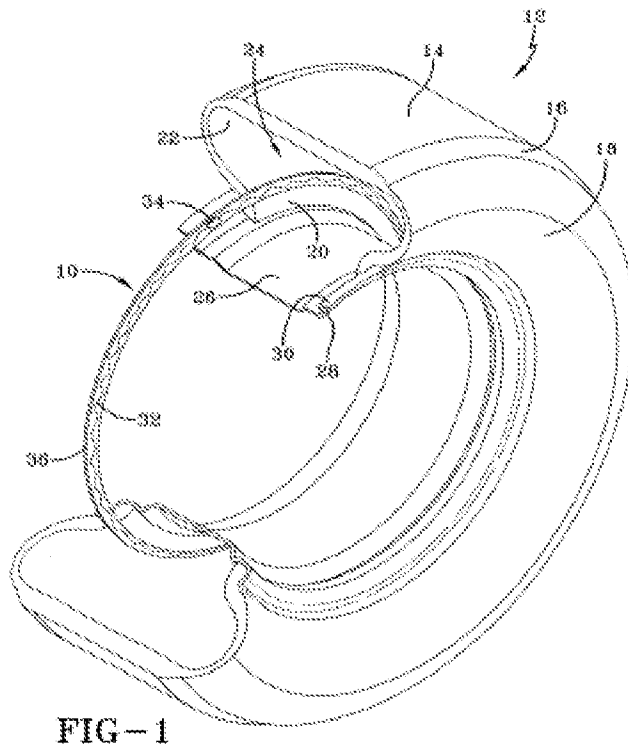


Figure 1 depicts a portion of a tire.

Figure 2 illustrates a section of an annular antenna ring and a transponder element. Spec., para. [008]. Appellants' Figure 2 is reproduced below:

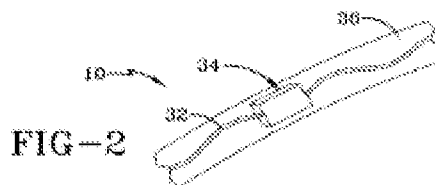


Figure 2 depicts an annular ring and a transponder element.

The Appellants disclose that the apparatus 10 comprises antenna wire(s) 32, a tag carrier 34, and a carrier strip 36. Spec., para. [0011].

Carrier strip 36 is formed of electrically insulating, preferably semi-rigid elastomeric material common to the industry, such as rubber or plastic.

The strip 36 is formed to substantially encapsulate the antenna wire(s) 32 and at least a portion of the tag carrier 34. Spec., para. [0011].

In the post manufacturing state shown in Figure 1, the apparatus 10 comprises antenna 32, tag carrier 34, and carrier strip 36, in a unitary, generally circular, assembly. Spec., para. [0011].

2. Claimed subject matter

Claim 9 is the only independent claim on appeal, and it reads as follows:

9. A tire having an antenna assembly affixed to an inward surface, the tire being formed by a process comprising the steps:
  - forming within a rigid core defining an interior surface of the tire a core recess complementarily configured to the antenna assembly;
  - positioning the antenna assembly within the core recess, the antenna assembly having an inward peripheral boundary enclosed by the recess and an exposed outward peripheral boundary;
  - building an uncured carcass of the tire around the rigid core and over the outward antenna assembly boundary, an inner surface of the tire entrapping the antenna assembly within the core recess;
  - cross-bonding the antenna assembly outward boundary to the inner surface of the tire during a cure cycle;
  - removing the cured tire and antenna assembly from the rigid core, the inward antenna assembly boundary being unbonded to the tire and facing an inner cavity of the tire.

Br. 14-15,<sup>4</sup> Claims Appendix.

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<sup>4</sup> Amended Brief on Appeal dated September 6, 2007.

3. Fritze

Fritze discloses a wheel comprising an oscillator and an antenna connected therewith. The components form an oscillator-antenna unit that extends about the entire circumference of the wheel. Fritze 3:26-31.

Figure 2 illustrates an embodiment of the invention. Fritze 2:55-57. Fritze Figure 2 is reproduced below:

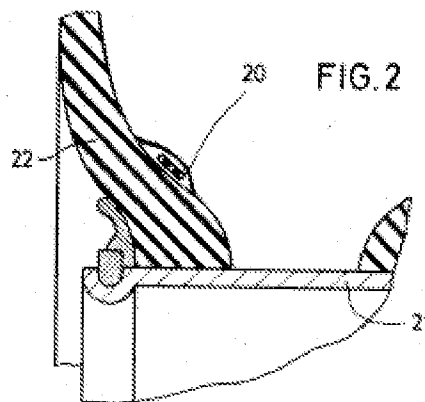


Figure 2 depicts a portion of a vehicle wheel.

In Figure 2, the components constituting the oscillator-antenna unit are in the form of one or more copper strands 20 extending about the circumference of the wheel. Fritze 3:45-49.

In Figure 2, the oscillator-antenna unit is vulcanized to the inside of the tire in proximity to the radial rim outer edge. Fritze 3:62-66.

D. PRINCIPLES OF LAW

“To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.” *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

Product-by-process claims are limited by and defined by the recited process. Determination of patentability, however, is based on the product itself. *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985).

E. ANALYSIS

Referring to column 3, lines 63-64 of Fritze, the Examiner found that Fritze describes a tire comprising an antenna assembly, e.g., an oscillator-antenna unit, vulcanized or bonded to the inside of the tire. Ans. 3-4.

The Examiner found that the antenna assembly depicted in Figure 2 comprises strands 20 and surrounding material, and projects from the inner surface of the tire to face the inner cavity of the tire. Ans. 4, 5. The Examiner found that the antenna assembly depicted in Figure 2 represents an antenna assembly in the same way that the Appellants' wires 32 encapsulated in carrier strip 36 represents an antenna assembly. Ans. 5.

In sum, the Examiner found that the structural features of the tire implied by the process of claim 9 are met by the tire disclosed in Fritze. Ans. 4.

The Appellants argue that Fritze does not disclose each and every element of a tire formed by the claimed process, and thus, does not anticipate the claimed subject matter. In particular, the Appellants argue that Fritze does not disclose a tire comprising the following structural features:

1. a tire having an antenna assembly having an inward peripheral boundary and an exposed outward peripheral boundary;
2. a tire having an antenna assembly in which an outward boundary of the antenna assembly is cross-bonded to the inner surface of the tire; and

3. a tire having an antenna assembly in which an inward antenna assembly boundary is unbonded to the tire and faces an inner cavity of the tire. Br. 7-8.

Rather, the Appellants argue that Fritze discloses an antenna 20 embedded in the sidewall of a tire. Br. 8-9.

Fritze discloses a tire comprising an oscillator-antenna unit vulcanized to the inside of the tire. Fritze 3:62-66; Figure 2. Figure 2 shows the oscillator-antenna unit or copper strands 20 to be encapsulated in a material. Based on the crosshatching in Figure 2, it appears that the material encapsulating copper strands 20 is different from the tire material. In any event, Fritze illustrates a boundary between the tire and the material encapsulating strands 20. Thus, we find that Fritze describes an antenna assembly comprising encapsulated copper strands 20 bonded to the inner surface of a tire. We further find that the surface of the antenna assembly facing the inner cavity of the tire is not bonded to the tire.

The Appellants disclose an antenna assembly 10 comprising antenna wire(s) 32, a tag carrier 34, and a carrier strip 36. Carrier strip 36 is formed of electrically insulating material, such as rubber or plastic. The strip 36 is said to substantially encapsulate the antenna wire(s) 32 and at least a portion of the tag carrier 34. Spec., para. [0011].

We see no difference between the tire disclosed in Fritze comprising encapsulated copper strands 20 vulcanized to the inside of the tire and the tire produced by the claimed process comprising an encapsulated antenna assembly bonded to an inner surface of the tire.

The Appellants also seek reconsideration of the Examiner's refusal to enter an amendment in response to the Final Office Action. Br. 10.



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The Examiner's refusal to enter the Appellants' amendment is a petitionable matter, not an appealable matter. Thus, the issue is not properly decided in this appeal. *In re Berger*, 279 F.3d 975, 984-85 (Fed. Cir. 2002); *In re Mindick*, 371 F.2d 892, 894 (CCPA 1967).

The Appellants have not shown that the Examiner reversibly erred in rejecting claims 9-13 under 35 U.S.C. § 102(b) as anticipated by Fritze.

F. DECISION

The rejection of claims 9-13 under 35 U.S.C. § 102(b) as anticipated by Fritze is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 35 U.S.C. § 1.136(a) (2008).

AFFIRMED

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